

MERL Capabilities:

The Materials Engineering and Research Laboratory (MERL) personnel are experts on the various materials Reclamation uses to build and maintain its structures. We are divided into eight disciplines:

- Concrete
- Concrete Repair
- Corrosion Protection
- Geotechnical Engineering
- Petrographic Analysis
- Polymers / Geosynthetics
- Protective Coatings
- Structural Testing

Services offered: We provide a wide variety of services including: troubleshooting construction problems, specification preparation and review, material submittal approvals, onsite inspection and other field services, expertise in state-of-the-art construction materials and practices, research on material problems, and training.

Technical training offered by MERL: Concrete and concrete repair school, corrosion school, coatings school, and earth school are taught every 12 months. An ACI Concrete Construction Special Inspector certification course is also held periodically. Customized training programs are available.

MERL staff are experts in a variety of engineering disciplines including: Chemical, Civil, Mechanical, Electrical, Metallurgical, Corrosion, Materials, Ceramic, and Polymer Science. Many of our staff hold advanced degrees, professional engineer registrations, and certifications from various professional societies including NACE, SSPC, and ACI.

Staff are trained in Rope Access (SPRAT) techniques to provide safe, efficient, and cost effective means for inspection or repair of otherwise inaccessible features.

Materials Engineering and Research Laboratory

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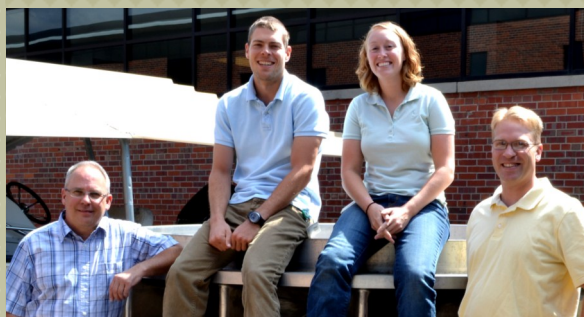
Coatings Staff

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Please contact us for more information!



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COATINGS



**MATERIALS
ENGINEERING AND
RESEARCH
LABORATORY**

RECLAMATION
Managing Water in the West

Coatings Group Capabilities:

Consultation: Expert knowledge in coatings for all service conditions. Special expertise in corrosion protection and zebra mussel control.

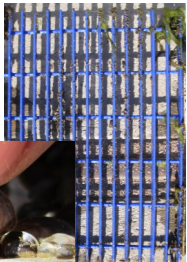
Coating Specifications: Experienced in writing and reviewing specifications for Regional and Area offices addressing all aspects and ensuring appropriate materials selection.

Materials Testing and Evaluation: Complete coatings evaluation laboratory for numerous ASTM and non-ASTM test methods, including salt fog, immersion, UV, cathodic disbondment, electrochemical impedance spectroscopy (EIS), abrasion, adhesion, and mechanical properties.



Applied research: Conduct and report comprehensive lab and field research projects related to Reclamation's coatings needs. Current areas of interest:

- Coatings for zebra/quagga mussel control
- New age metallized coatings
- Erosion resistant coatings
- Pipeline coatings
- Service lifetime prediction



Fabrication & Coating Application:

Personnel are experienced coating applicators and inspectors and perform in-house fabrication, surface preparation, and coating of small equipment. Contact us to find out if we can provide a cost-effective recoat/repair for your equipment.

Certifications:

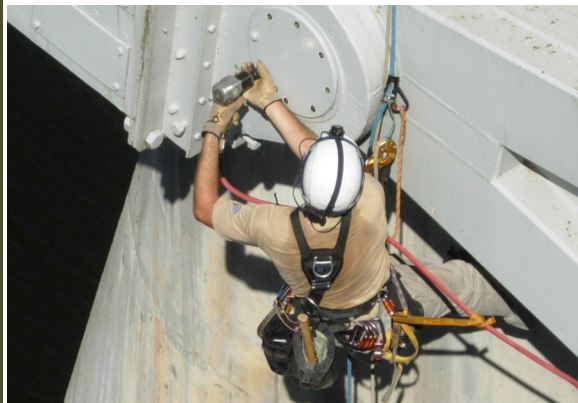
Registered Professional Engineer

SSPC Protective Coatings Specialists

NACE CIP Coatings Inspectors

SPRAT Certified Rope Access

Ultrasonic Thickness Testing and Other Non-Destructive Evaluation (NDE) Methods



Selected Publications:

- Guide to Protective Coatings, Inspections, and Maintenance, April 2012
- Coatings for Mussel Control 3 Years of Laboratory and Field Testing, March 2012

Coated Structures:

- Pipelines
- Canals
- Storage Tanks
- Pressure Vessels
- Hydro Facilities
- Pumps
- Gates
- Trashracks



Corrosion and Coatings School:

Corrosion and Coatings School is a 3-day course offered by MERL. This course will familiarize participants with the issues relating to protective coatings and corrosion. Course topics include corrosion and its control, surface preparation, coating application, types of protective coatings, coating degradation, cathodic protection, safety, new technologies, as well as inspection and repair techniques. The course will also provide hands-on experience to participants. Contact any group member for more information.

Recent Projects:

- Durango Pumping Plant
- Red Bluff Pumping Plant
- John Keys Pumping Plant
- Grand Coulee Dam
- Folsom Dam
- Yellowtail Dam
- Davis Dam
- Minidoka Dam
- Pueblo Dam
- Webster Dam

